



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

Application No.	Serial No.	Publication No.	Publication Date	Publication Type
10/582,212	7,412,112	2005/022,000 A1	4/14/05	2004

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EXAMINER

CHOI, JACOB Y

DATE OF FILING

DATE MAILED 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09-918 262

Examiner

Jacob V. Cho

Applicant(s)

RANDALL, STEPHEN, MICHAEL

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a) and even, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. 35 U.S.C. § 133.
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4. <input type="checkbox"/> Interview Summary (PTO-413) (Paper Only)        |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-846)    | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-117) |
| 3. <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) (Paper Only) | 6. <input type="checkbox"/> Other _____                                     |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b) by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language

2. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Naum (USPN 6,272,269).

Regarding claim 1, Naum discloses a light emitting diode that emits a radiation pattern (column 1, lines 7-15; figure 10), wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the light emitting diode (26, 28; common properties of light emitting diode(s)), and a number of light guides positioned to be illuminated by the light emitting diode (column 5, lines 9-20; figures 5, 9, 23A, 24), each light guide positioned at offset locations relative to the center axis of the light emitting diode (figure 10, center axis of the each diode, except the center diode, being offset from the light guide)

Regarding claim 2. Naum discloses each light guide is positioned such that a cross-sectional center of each light guide substantially corresponds to locations of the maximum luminous intensity of the radiation pattern of the light emitting diode

Regarding claim 3. Naum discloses the number of light guides includes two light guides

Regarding claim 4. Naum discloses the number of light guides includes two light guides.

Regarding claim 5. Naum discloses a light guide fixture formed to mate with the light guides, wherein the light guide fixture positioned the light guides at the offset locations relative to the center axis of the light emitting diode.

Regarding claim 6. Naum discloses the light guide fixture is positioned adjacent the light emitting diode.

Regarding claim 7. Naum discloses the light guide fixture is a housing that houses the light emitting diode.

Regarding claim 8. Naum discloses at least one of the light guides provides directional side lighting in a first direction and wherein at least another of the light guides provides directional side lighting in second directions

Regarding claim 9. Naum discloses a LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the LEDs, and at least one light guide positioned to be illuminated by the LED, the light guide positioned at an offset location relative to the center axis of the LED

Regarding claim 10, Naum discloses the light guide is positioned such that a cross-sectional center of the light guide substantially corresponds to a location of the maximum luminous intensity of the radiation pattern of the LED.

Regarding claim 11, Naum discloses a light guide fixture formed to mate with the light guide, wherein the light guide fixture positions the light guide at the offset location relative to the center axis of the LED.

Regarding claim 12, Naum discloses the light guide fixture is positioned adjacent the LED.

Regarding claim 13, Naum discloses the light guide fixture is a housing that houses the LED.

Regarding claim 14, Naum discloses a LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the LED, a light guide fixture, the light guide fixture formed to mate with the light guides, a first light guide having a first end mated with the light guide fixture, wherein the first end of the first light guide is positioned at a first offset location relative to the center axis of the LED, a second light guide having a first end mated with the light guide fixture, wherein the first end of the second light guide is positioned at a second offset location relative to the center axis of the LED.

Regarding claim 15, Naum discloses the first end of the first light guide is positioned such that a cross-sectional center of the first light guide substantially corresponds to a first location of the maximum luminous intensity of the radiation pattern.

of the LED, and wherein the first end of the second light guide is positioned such that a cross-sectional center of the second light guide substantially corresponds to a second location of the maximum luminous intensity of the radiation pattern of the LED.

Regarding claim 16, Naum discloses the first and second locations of the maximum luminous intensity of the radiation pattern of the LED are substantially rotationally symmetric around the center axis of the LED.

Regarding claim 17, Naum discloses the light guide fixture is positioned adjacent the LED.

Regarding claim 18, Naum discloses the light guide fixture is a housing that houses the LED.

Regarding claim 19, Naum discloses LED is a first LED and the light guide fixture a first light guide fixture, the illumination device further comprising, a second LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern of the second LED is displaced relative to a center axis of the second LED, a second light guide fixture, the second light guide fixture formed to mate with the light guides, wherein the first light guide has a second end mated with the second light guide fixture, wherein the second end of the light guide is positioned at a first offset location relative to the center axis of the second LED, and wherein the second light guide has a second end mated with the second light guide fixture, wherein the second end of the second light guide is positioned at a second offset location relative to the center axis of the second LED.

Regarding claim 20, Naum discloses the first end of the first light guide is positioned such that a cross-sectional center of the first light guide substantially corresponds to a first location of the maximum luminous intensity of the radiation pattern of the first LED, wherein the first end of the second light guide is positioned such that a cross-sectional center of the second light guide substantially corresponds to a second location of the maximum luminous intensity of the radiation pattern of the first LED, wherein the second end of the first light guide is positioned such that a cross-sectional center of the first light guide substantially corresponds to a first location of the maximum luminous intensity of the radiation pattern of the second LED, and wherein the second end of the second light guide is positioned such that a cross-sectional center of the second light guide substantially corresponds to a second location of the maximum lumens intensity of the radiation pattern of the second LED.

Regarding claim 21, Naum discloses the first light guide fixture is positioned adjacent the first LED, and wherein the second light guide fixture is positioned adjacent the second LED.

Regarding claim 22, Naum discloses the first light guide fixture is a housing that houses the first LED, and wherein the second light guide fixture is a housing that houses the second LED.

Regarding claim 23, Naum discloses the first light guide provides directional side lighting in a first direction, and wherein the second light guide provides directional side lighting in a second direction.

Regarding claim 24, Naum discloses a LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the LED, a number of light guides, and a means for positioning each light guide at offset locations relative to the center axis of the LED.

Regarding claim 25, Naum discloses further comprising means for positioning each light guide such that a cross-sectional center of each light guide substantially corresponds to locations of the maximum luminous intensity of the radiation pattern of the LED.

Regarding claim 26, Naum discloses a frame, a LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the LED, wherein the LED is housed within the frame, and a number of light guides positioned to be illuminated by the LED, each light guide positioned at offset locations relative to the center axis of the LED, wherein the frame is formed with holes and the each light guide protrudes through at least one of the holes (figure 23c).

Regarding claim 27, Naum discloses each light guide is positioned such that a cross-sectional center of each light guide substantially corresponds to locations of the maximum luminous intensity of the radiation pattern of the LED.

Regarding claim 28, Naum discloses the maximum luminous intensity of the radiation pattern of the LED are substantially rotationally symmetric around the center axis of the LED.



Regarding claim 29, Naum discloses each light guide provides directional side lighting in a unique location

Regarding claim 30, Naum discloses a frame, a first LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the first LED, a first light guide fixture, the first light guide fixture formed to mate with light guides, wherein the first LED and the first light guide fixture are housed in the frame, a first light guide having a first end mated with the first light guide fixture, wherein the first end of the first light guide is positioned at a first offset location relative to the center axis of the LED, a second light guide having a first end mated with the first light guide fixture, wherein the first end of the second light guide is positioned at a second offset location relative to the center axis of the first LED, a second LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the second LED, and a second light guide fixture, the second light guide fixture formed to mate with light guides, wherein the first light guide has a second end mated with the second light guide fixture, wherein the second end of the first light guide is positioned at a first offset location relative to the center axis of the second LED, wherein the second light guide has a second end mated with the second light guide fixture, wherein the second end of the light guide is positioned at a second offset location relative to the center axis of the second LED, and wherein the frame is formed with holes and wherein the first and second light guide pass through the holes (figure 23c)

Regarding claim 31, Naum discloses the first and second light guides are positioned such that a cross-sectional center of each light guide substantially corresponds to locations of the maximum luminous intensity of the radiation pattern of each of the LEDs.

Regarding claim 32, Naum discloses the locations of the maximum luminous intensity of the radiation pattern of the LED are substantially rotationally symmetric around the center axis of the LED.

Regarding claim 33, Naum discloses positioning a number of light guides next to a LED that emits a radiation pattern wherein a maximum luminous intensity of the radiation pattern is displaced relative to a center axis of the LED, each light guide being positioned at offset locations relative to the center axis of the LED, and illuminating the light guides with the LED.

Regarding claim 34, Naum discloses positioning each light guide such that a cross-sectional center of each light guide substantially corresponds to locations of the maximum luminous intensity of the radiation pattern of the LED.

It has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

Regarding claim 35, Naum discloses a frame, a LED housed within the frame, a first light guide positioned to be illuminated by the LED, wherein the first light guide provides directional side lighting in a first direction, and a second light guide positioned to be illuminated by the LED, wherein the second light guide provides directional side lighting in a second direction (figure 23c)

Regarding claim 36, Naum discloses the frame is formed with holes and the each light guide protrudes through at least one of the holes

Regarding claim 37, Naum discloses the LED is a first LED, the sign further comprising a second LED housed within the frame wherein the first and second light guides are positioned to be illuminated by the second LED.

Regarding claim 38, Naum discloses the first and second light guides provide lighting in different colors.

### ***Response to Arguments***

3. Applicant's arguments filed 06/30/2003 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the "maximum luminous intensity of the radiation pattern is displaced *relative* to a center axis of the light emitting diode" and that the teachings of Naum fails to disclose this certain feature, applicant states in "Background" utilization of a light source: incandescent light sources, fluorescent light sources, or *light emitting diodes*, and that "batwing" radiation patterns in which the maximum luminous intensity of the light emitting diodes is angularly displaced. In addition, applicant states that the invention utilizes the "batwing" radiation pattern of a light emitting diode in the "Specification". It is well known in the art / obvious to one having ordinary skill in the art at the time the invention was made to recognize the light emitting diodes have their maximum luminous intensity near the center axis of the light emitting diode (typically not at the center axis but very much near the center axis). Applicant also states that the light emitting diodes are well suited for illuminating light guides because light emitting diodes are *point-like light source* and evidently focused light source such as light emitting diodes tend to have their luminous intensity near the focal point of the light emitting diode.

In response to applicant's argument that the "position of light guides at offset locations relative to the center axis of the light emitting diode," it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify teachings of Naum to omit central light emitting diode, especially in figure 10 since it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only

routine skill in the art. *In re Karlson*, 136 USPQ 184. Naum clearly discloses applicant's claimed invention.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Y Choi whose telephone number is (703) 308-4792. The examiner can normally be reached on Monday-Friday (10:00-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9316 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-7724.

JC  
July 14, 2003

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